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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/051,429	01/17/2002	John P. Brostrom	M-11947 US	9051
7590 12/09/2003				
Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P. 1300 I Street, NW Washington, DC 20005-3315			EXAMINER STAHL, MICHAEL J	
			ART UNIT 2874	PAPER NUMBER

DATE MAILED: 12/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/051,429	BROSTROM ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Mike Stahl	2874	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 August 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 5,6,10-17 and 22-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5,6,11 and 22-26 is/are allowed.
- 6) ☒ Claim(s) 10 and 12-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

This office action is in response to the amendment filed August 15, 2003. The changes to the specification and claims are acknowledged. Claims 5-6, 10-17, and 22-26 remain. The indefiniteness rejection of claim 11 made in the last office action is withdrawn. The present office action is not made final.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 10 and 12-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Hartman et al. (US 5230030).

Hartman discloses an optical transceiver including a housing **22** mountable on a base **15** which is partly formed from a printed circuit board. The entire structure including base **15** and layers **16** and **17** is regarded as a printed circuit board. This interpretation is supported by Hartman's reference to "a keyway formed in a printed circuit board" (see abstract) and "a base for mounting electric circuits thereon and having formed therein a keyway" (see summary and claim 1). Thus a portion of the housing lies above a plane of the board (e.g. a plane corresponding to the bottommost layer **16** in fig. 1), and another portion of the housing lies below a plane of the board as required. As to claim 10, the housing **22** has a wedge shape. As to claims 12 and 13, the corners of housing **22** are effectively rails which engage a notch **20** of the

base, and constitute a posteriorly located attachment mechanism which holds the housing in place in a cutout (keyway **20**) of the board.

Claim 16 is rejected under 35 U.S.C. 102(a) as being anticipated by Gregory (US 6305848).

Gregory discloses an optical transceiver comprising a housing **16** (called a mounting block in the reference) for optical transmitters **60/62** and receivers **64/66** (see figs. 2 and 4-6). The housing is mountable on a circuit board **20** with a first portion of the housing above a plane of the circuit board and a second portion of the housing below the plane of the circuit board. The housing includes a heat sink (i.e. itself) as noted at col. 3 lines 61-63.

Claim 16 is rejected under 35 U.S.C. 102(b) as being anticipated by Robin et al. (US 5134679).

Robin discloses an optical transceiver including a housing **22** which is mountable on a circuit board **11** such that part of the housing lies above a plane of the circuit board and part of the housing lies below that plane (see figs. 3-4). The housing **22** acts as a heat sink relative to the optoelectronic devices **20/21** which it encloses.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hartman et al. (cited above).

Hartman does not describe the latch arm or screw mechanisms of claims 14 and 15. However, Hartman does acknowledge the need to properly align the housing 22 relative to board 15 and to secure the aligned state once it has been established (col. 3 lines 49-63). Accordingly it would have been obvious to a person of ordinary skill in the art to use any well-known releasable attachment device, including latch arms or screws, to hold the housing in its correctly aligned position relative to the base.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gregory (cited above).

Gregory does not disclose heat fins per se on housing 16. Heat fins are old and well known. It would have been obvious to a person having ordinary skill in the art to provide housing 16 and/or its shroud 17 with fins in order to advantageously increase the surface area available for heat dissipation.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

### *Response to Arguments*

Applicant's remarks regarding the rejection of claims 10, 12 and 13 under Hartman et al. are not persuasive. Applicant appears to have misunderstood the examiner's interpretation of the Hartman reference, in particular by suggesting that the circuit board lies in a plane which is flush with the face opposite to face **27** of housing **22** when the housing is inserted. This was not the examiner's interpretation, and the rejection above was revised in an attempt to clarify it. It is noted that the reference numeral **15** has a lead line which points to the face opposite to face **27**, but numeral **15** is actually referring to a base layer in three dimensions, not just that face. In other words, layer **15** is a base layer relative to layers **16** and **17**.

Applicant's remarks in relation to the previous rejections of claims 16 and 17 under Chan et al. are persuasive. In essence applicant argues that overmold frame **18** is not a circuit board. The only other element which is a circuit board is laminate board **93**, but housing **27** does not lie partly above and partly below board **93** as required. After reconsideration of the reference in

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view of applicant's remarks, the examiner agrees with these remarks and the rejections have been withdrawn accordingly.

***Allowable Subject Matter***

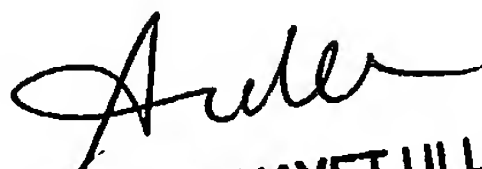
Claims 5, 6, and 11 are allowed in view of applicant's amendment to place the previously identified allowable subject matter of claims 5 and 11 into proper independent form. New claims 22-26 are allowed by dependence from claim 5.

***Conclusion***

Any inquiry concerning this communication should be directed to Mike Stahl at (703) 305-1520 prior to January 12, 2004 or (571) 272-2360 after that date. Official communications eligible for submission by facsimile may be faxed to (703) 872-9318 (before final) or (703) 872-9319 (after final). Inquiries of a general or clerical nature (e.g., a request for a missing form or paper, etc.) should be directed to the Technology Center 2800 receptionist at (703) 308-0956 or to the technical support staff supervisor at (703) 308-3072.

MJS

Michael J. Stahl  
Patent Examiner  
Art Unit 2874

  
AKM ENAYET ULLAH  
PRIMARY EXAMINER

November 26, 2003